



Labelling and Evaluation Assessment System Biodiversity and property operations



# **EXPLANATORY GUIDE**

# **BiodiverCity**<sup>©</sup> Label

The assessment standard system is made of:

- The explanatory guide
- The technical manual : definition of criterions and rating system
- The assessment software and grid chart of the biodiversity label
- Comprehensive qualifications standards for designated assessors



Trademark: Conseil International Biodiversité & Immobilier© Association de 1901, creation Nr : W751222179 97 rue Jean Pierre Timbaud 75011 Paris France

> Trademark registration: December 4, 2013

# INDEX

## OVERVIEW 4

#### FIRST PART 7

Biodiversity & construction		
1.1.	AN INNOVATIVE REFERENCE AND LABEL	8
1.2.	A PROMOTIONAL TOOL FOR A NEW GENERATION OF "GREEN BUILDINGS"	8
1.3.	INTRODUCING BIOLOGICAL CONCEPTS IN THE CONSTRUCTION BUSINESS	9
1.4.	THE DOGMA: WELL-BEING OF DWELLERS AND CLOSENESS TO NATURE	10
1.5.	COMPLEMENTARITY WITH SUSTAINABLE CONSTRUCTION CERTIFICATIONS	11
1.6.	Existing institutional frameworks in France and Abroad	11

# PART TWO 13

The accompagnying tool of the project13
---

2.1.	CONTENT OF THE CERTIFICATION	14
2.2.	GENERAL OBJECTIVES	15
2.3.	SCOPE OF APPLICATION	17
2.4.	SUGGESTED APPROACH	20
2.5.	PROJECT MANAGEMENT SYSTEM	24
2.6.	WORKING ON THE CONTENT	25
2.7.	HOW ARE THE LEVELS FITTING TOGETHER	31
2.8.	THE ASSESSMENT INTERPRETATION	34

#### THIRD PART 36

36
45

REFERENCE 47

#### **Overview**

The real estate sector is experiencing a real revolution leading to the construction of sustainable buildings and neighborhoods, with a view to the development of greener cities. So far, biodiversity or diversity has not been a top priority issue for real estate and construction. It is however a major environmental and meaningful issue related to ecology: the green image of buildings and the well-being of city dwellers.

It reflects on nature in the city and relationship between people and the diversity of the living. Ecological amenities, biophilic architecture or the resilience of gardens and terraces, are true assets of property attractiveness and they enhance its intangible value.

**BiodiverCity**© provides a streamlined approach for the benefit of the stakeholders in the sustainable building sector, and helps them to measure and display the progress they make while integrating biodiversity in their property projects. It is an innovative tool for competitiveness which sets tangible standards in a rather complex field: <u>biodiversity in the city</u>. It emphasizes the improvements and sets a relationship of mutual trust between the project owner, the customers and their partners.

The *BiodiverCity* certification is a technical guide. The Label assesses that the real estate project is compliant with an environmental quality level.

It ensures that the project meets the requirements mentioned in the specifications. The tag displays the performance level reached. *BiodiverCity©* is a registered trademark, owned by the International Biodiversity and Property Council (IBPC) who delivers the label after an audit of the project, performed by an independent body, not related to the candidates nor the assessor.

The *BiodiverCity* label and its performance tag are designed for the property stakeholders: planners, investors, architects, developers and property managers. The purpose is to match real estate with nature, vegetation and the living.

This guide introduces the tool and the approach. It first explains the context and develops the concept of urban biodiversity. It details the technical grid helping to conduct new projects. The guide is intended for users of the reference data and all persons willing to learn more about the approach and the system. The guide presents the general objective, the topics to achieve and the labelling rating. Technical criteria for the evaluation are described in another guide, the technical manual, which details the actions to undergo and the rating system.



# **TECHNICAL TERMS**

IBPCO: International Biodiversity and Property CouncilO.

*BiodiverCity©:* Biodiversity quality label for real estate operations – delivered by the International Biodiversity and Property Council©.

**Amenities**: things that make you comfortable and at ease (in the environment) and therefore are much appreciated, but cannot be given a price tag, or cannot be the property of some persons only.

Anthropic: related to human actions and activities.

**Positive Built Blodiversity (PBB) :** Oriented to improvement of biodiversity in building. It is based on basic environment concepts with projects' support scorecards, technical details on implementation of biodiversity elements to the project, information on economical, regulatory issues, the use of amenities. It is a management tool for the project and the assessment of biodiversity performance.

BAP or BAP+: Biodiversity Accredited Professional

**Bio architecture**: architectural conception of buildings and real estate projects generating, supporting and developing biodiversity.

**Bio-mimicry**: integration of the positive process and capabilities of the living systems into human activities.

**Biodiversity**: the variety of species, ecosystems and their genetic diversity. It describes the process and biotic and abiotiques interactions of the planet.

**Biotope/useful Biotope**: designates the habitat of biodiversity and all its physico-chemical components.

**Biocenosis:** a self-sufficient community of naturally occurring organisms occupying and interacting within a specific biotope.

**Biophilia**: expression of the human desire to live in connection with natural environment. This desire is amplified since human beings became aware of the negative biological evolution.

Ecological capacity of a property operation: preserves useful habitats in property projects. .

**Ecological mitigation**: complementary measures done within the frame of the destruction of a landscapes area by infrastructure and other industrial developments.

**Ecological corridor**: privileged path for the circulation of biodiversity within the landscapes areas and the urban areas.

Scientific Ecology: studies biodiversity and ecosystems and their mutual interactions.



Ecologist/ biologist: A specialist of Scientific Ecology.

**Local species**: Vegetal or animal specie living in a given area defined by its environment (biological and geographical).

**Target species**: vegetal or animal species to be protected for their added-value in a ecosystem.

**Invasive species:** species introduced (voluntarily or not) in an environment, rapidly growing and spreading in the area. Those species usually invade vacant land and compete with local species, leading sometimes to the extinction of the good species.

**Ecological issues of a property operation:** range of biodiversity and associated ecosystems issues. For instance, refuge areas, breeding and feeding areas, exchanges with neighborhood.

**Habitat:** The physical location or type of environment in which an organism or biological population lives or occurs.

Built island: a whole set of built plots, considered as an elementary unit in the urban space.

**Ecological impact of a property operation**: negative or positive side effects of a property project on the natural habitat.

**Project owner**: entity that initiates a project, finances it, contracts it out and benefits from its outputs.

Project management: entity in charge of planning, control and monitoring of the property project.

**Ecological potential of a property operation:** Ecological asset value of a project taking into account the landscapes areas preserved or created further to the operation and their evolution (growth of vegetals and adapted care).

Planning / conception / development: the several stages of a property project.

**Architectural issue / Biodiversity issue**: relates to the architecture or the biodiversity aspects of the project.

**Ecological assets of a real-estate operation :** rates the ecological aspects of a real-estate project, i.e. the diversity and richness of animals and vegetals, the environment, presence of rare species...

**Green and blue network**: water and vegetal areas with animal and vegetal species; kind of ecological corridors and nature reservoirs.

**Eco-systemic service:** all the services rendered by nature including supply of resources and other services such as a continuous and lasting quality of the environment.

# **FIRST PART**

# **Biodiversity & construction**

Biodiversity is one of today's **major issues**, gathering all **sustainable development** areas (energy, health, mobility and resources management). **Urban biodiversity** deals with daily contact with nature and in practice, sets the sustainability specific criteria of a property operation : biodiversity is external, hence visible; it is in close connection with bio-architecture, green walls, gardens and means something to all.

The *BiodiverCity©* approach aims at evaluating and promoting real-estate operations which take into account biodiversity in built (or to be built) islands, for the well-being of city dwellers.

It is an **innovative approach** associating living species with urban buildings (planning, constructing, and developing a new buildings' typology integrating scientific ecology). **The** goal is to restore the place of nature within the city.

The preservation of biodiversity for real-estate players is made possible thanks to the close connection between inhabitants and nature: preserving nature at the foot of one's building helps to get to learn and respect the biodiversity of the planet.



#### **1.1. AN INNOVATIVE REFERENCE AND LABEL**

*BiodiverCity*<sup>©</sup> is the first label which allows to rate and display the performance of real estate operations towards their level of implementation of societal biodiversity.

A forerunner for tomorrow's ecological society, it sets an original and genuine path worldwide.

The labelling feature is backed by an exhaustive analytical grid. A tag makes the labelling understandable by all public.

*BiodiverCity©* is then the perfect tool to accompany property projects and promotes the importance of landscapes spaces, the quality of gardens and ecosystems associated to buildings.

Beyond the vegetal design, it introduces a new approach of the ecological functions and a new dimension to « landscapes spaces » and the maintenance of buildings.

#### **1.2.** A PROMOTIONAL TOOL FOR A NEW GENERATION OF "GREEN BUILDINGS"

In today's urban context, and with the global concern on environment, biodiversity is an essential issue. The *BiodiverCity©* label is the perfect answer to this emerging demand.

On an economic level, the upgrading of ecology will complement the « green value » of an operation: in the same manner as parks and gardens add value to properties, an optimisation of biodiversity contributes to the immaterial value of a property asset.

With the *BiodiverCity* label, a new generation of « green buildings » is born and numerous players of the business will benefit from it :

- Labelling identifies the innovative ecological projects; it is a stimulating tool to compare and emphasize the best projects
- Highlighting biodiversity linked to built environment will offer urban planners and developers arguments in favor of better-qualified operations
- It will help local officials in their discussions with promotors
- NGOs focussing on nature in the city will have a new lever for awareness-raising
- Professionals and suppliers in the Gardens ans Landscapes spaces sector will appreciate the upgrading and diversification of their sector.

The new buildings, with their biodiversity features, will be easily identified and noticeable. They won't be overlooked.



#### 9 | Page

#### **1.3.** INTRODUCING BIOLOGICAL CONCEPTS IN THE CONSTRUCTION BUSINESS

<u>Biodiversity</u> expresses the diversity of the living, the environment, the recreational areas, species, and horticultural varieties. The term also applies for the complexity of exchanges, spontaneous interactions, and natural dynamics and organization levels of the living (ecosystems, species, genes). These elements interact and will be stabilized over time (seasons, years..) according to local context.

Urban biodiversity is made of flora and fauna present in the biological habitat of the city (landscapes spaces in open ground or in patios or courtyards, parkings, trees, lawns, roofs, terraces, flower boxes, balconies..) and also designates the whole range of benefits derived from it.

The concept of biodiversity includes both the wild and spontaneous elements of nature AND the planted ones (gardens).

In the city, the living is dependent on climatic disturbances: mineral substrates, disturbed soils, microclimate, pollution...

We reckon that an ecosystem is made of biotope (the physico-chemical environment) and the biocenosis (living organisms, flora, fauna...), the latter being spontaneous. The construction of new buildings generates new biotopes that are more or less compatible with the biocenosis already present.

The science of biodiversity is called <u>scientific ecology</u>.

The specialists are called ecologists.

The purpose of <u>Ecological Engineering</u> is to implement green systems (ecosystems, vegetal dynamics, phytobiology, pedogenesis, animal population...) that will be self-sustainable, even if originally artificial.

The maintenance of gardens, the regulation of animal species etc... is called <u>Ecological management</u>. The goals set by biodiversity are decided or negotiated with the stakeholders.

The biodiversity aspects of a project include the notion of <u>Global Cost</u> : the « greening » of a project has a cost and a maintenance cost as well.

Therefore, the label also integrates <u>Facilities Management</u>, and the differentiated management, on and around the buildings. The approach allows the management of the landscapes areas according to their specificity and their function ; not all areas require the same kind of maintenance and care.



#### **1.4. THE DOGMA: WELL-BEING OF DWELLERS AND CLOSENESS TO NATURE**

The goal is to reconcile cities and nature, whether mineral, vegetal or animal, with vegetable gardens, birdhouses or wild biotopes.

In town, the living is brought and cared for by humans, taking into account the microclimate, substrates, the project, local culture, maintenance techniques. A blooming biodiversity in town requires techniques other than preservation of wildlife.

In short, it is the reconquest by nature of urban biodiversity; therefore the main issue is to train urban dwellers to a green neighborhood.

The goal of the ecologist through the label is to give access to a functional, accessible, resilient landscape (ecological amenity, taming of the wilderness).

The ecologist works in close relationship with the landscaper and the architect.

The social, cultural and aesthetic dimension of the *BiodiverCity©* approach is important and is connected to the art of gardening and vegetal design; it requires knowledge in fauna, ecology, sustainability and ecosystems.

Biodiversity is part of the architectural design, in terms of aesthitics and use of natural areas. *BiodiverCity©* upgrades the biodiversity part of a real-estate operation.



#### **1.5.** COMPLEMENTARITY WITH SUSTAINABLE CONSTRUCTION CERTIFICATIONS

Sustainable construction certifications such as HQE <sup>TM</sup>, BREEAM <sup>®</sup> and LEED<sup>®</sup> refer to biodiversity but do not really address the subject. Biodiversity does not weight enough for projects trying to distinguish themselves in this area.

The *BiodiverCity* certification was designed to adjust to and complement the existing sustainable constructions certifications.

The *BiodiverCity* certification is ruled like the Europe Retail BREEAM 2008 : it requires the intervention of an ecologist with a strong knowledge.

The **BiodiverCity** performance grids follow the same structure as the HQE  $^{TM}$  in terms of targets / concerns / priority criteria, which made its ratification by Project Management parties, who are familiar with this structure.

In addition, the approach complements the ECOJARDIN label which concerns the public and private landscapes areas: a project can receive the *BiodiverCity©* label for the building and ECOJARDIN for the landscapes areas.

#### **1.6. EXISTING INSTITUTIONAL FRAMEWORKS IN FRANCE AND ABROAD**

Biodiversity awareness-raising is regulated by local laws regarding protection of rare or endangered species, preservation of remarquable natural spaces and ecological balance (green and blue networks) and the environmental assessment of big projects or projects with strong impact (Environmental Impact Assessment).

With the exception of local urban planning documents, there are few texts ruling ordinary urban biodiversity. This vacuum is however being filled further to the Grenelle Environment Guidelines, which insist on the importance of common biodiversity.

There are nonetheless some major international frames and dynamics that *BiodiverCity©* tries to be consistent with :



#### • The CBD: Convention on Biological Diversity

Initiated in 1992 at the Rio Earth Summit and signed by 193 government leaders so far, this major international convention represents a dramatic step forward in taking into account biodiversity worldwide: the conservation of biodiversity, the sustainable use of its components and the fair and equitable sharing of benefits arising from the use of genetic resources.

# • The commitments of big cities : international positionning and local actions towards biodiversity

Cities and city networks such as International Council for Local Environmental Initiatives (ICLEI) contribute at their own level (in addition to Government level) to actions on biodiversity such as Cities for Life, City & Subnational Biodiversity Summit in India in 2012)

In March 2007, World Mayors participated to a meeting in Cities and biodiversity held in Curitiba (Brazil) and signed the « Curitiba Declaration on Cities and Biodiversity », reaffirming their commitment to integrate the objectives of the CBD Convention into urban planning and recalling the urgency to raise public awareness on biodiversity issues.

The CBD secretariat published in 2012 « cities and biodiversity outlook : Action and policy : Global Assessment of the Links between **Urbanization**, **Biodiversity**, **and Ecosystem Services**". This report summarizes the global assessment of links between urbanization, biodiversity and Ecosystem services". It reflects the contribution of 120 scientists and politiciens worldwide and affirms the way urbanization affects biodiversity and ecosystem services. It conveys 10 key messages in favor of conservation reinforcement and sustainable use of natural resources in urban environment.

Many cities made a firm commitment. For instance, the cities of London and Paris adopted a biodiversity plan promoting biodiversity-oriented construction planning.

#### • The Singapore Index : CBI (City Biodiversity Index)

The Singapore index is a self-assessment tool for cities to evaluate their biodiversity conservation efforts over time. It was presented at the World Conference of Nagoya (2010) on biodiversity as a scoring criteria for UN.

This index comprises 25 indicators measuring the services rendered by biodiversity in city and management of urban biodiversity (awareness, partnerships, regulations...)



# PART TWO The accompagnying tool of the projects

## 2.1. CONTENT OF THE CERTIFICATION

The *BiodiverCity C* certification is an exhaustive tool comprising:

- An explanatory guide
- A technical manual
- An Assessment software.

All these documents contain :

- A precise description of the criteria to target a project integrating biodiversity and the procedures to classify the project according to the criteria.
- The nature and format of information to gather and detail in order to justify the scoring level allocated by criterion
- A description of the assessment methods used to grant the performance level.
- A grid of the control procedures (Assessor and Auditor) and the procedures to be followed by the project owner concerned by the assessment and the use of the label.

The *BiodiverCity* c benchmark is an operational tool for all teams engaged in real-estate operations :

- An analysis tool to
  - Monitor and oriente the conception of the project ,
  - Implement the good practices of construction and development
- A measuring tool to :
  - Etalonner sur des bases objectives et transparentes la performance de la démarche,
  - Exposer et donner de la valeur ajoutée par la mise en exergue des résultats.

The tool is flexible and multipurpose (check-list, performance charts, progress reports).

It defines the rules governing the biodiversity performance tag for property operations.



## 2.2. **GENERAL OBJECTIVES**

The general objective of *BiodiverCity©* is to promote ecological construction, taking into account and emphazising the living systems and improving the living environment. It includes maintenance and operations management system.

The *BiodiverCity*<sup>©</sup> label and performance tag add value to the more successful operations and therefore create a healthy competition which will benefit the cities themselves.

#### Respect the obligation of protection of nature

This is not an environmental assessment meant to assess or support the urbanization decision. It implies a globally virtuous and responsible attitude regarding regulations and environment.

To that extend, we assume that the authorization was granted according to urbanization or environment. The obtention of the label, the prerequisite include:

- Respect of all regulations in terms of protection of nature
- Respect of all regulations in terms of urbanization

We consider that the decision of urbanization is already taken, and that the project is compliant with the local right of use of the soils.

Therefore the assessment does not take into account a before/after comparison.

What is at stake is the ecological quality of the construction approach, within the framework of an authorized urbanization where the environmental assessment encompasses biodiversity.

#### Understand the issue of ordinary urban biodiversity

The challenge deals on the one hand with the integration of property operations in a biological background (green city, urban ecosystem, site, the « genius loci ») and on the other hand, with the greening strategy of the construction itself :

- For commercial upgrading and the sustainability of the property
- For the well-being of users and dwellers.



This goal is reached through three different approaches :

#### **APPROACH N° 1 :**

To support the design and broaden the reflection on evironmental topics

To preserve as much as possible the existing ecological potential, to minimize the negative impacts of the project on local biodiversity, and maximize the positive impacts and alterations done to reach a favorable « biodiversity accountability framework » (positive biodiversity building).

#### **APPROACH N° 2 :**

To build and run buildings and eco-neighborhood which promote biodiversity

- ➔ To encourage studying all aspects and challenges of local biodiversity, defining targets and gathering means, whether financial investment or knowledge regarding the management of buildings, green works and associated landscapes ares, in the short or long term.
- ➔ To learn techniques to reduce nuisance and stress for the city dwellers, to find ecological solutions against the negative aspects of wildlife and some invasive species.

#### **APPROACH N° 3** :

To add value to some property products while emphasizing the services rendered, such as :

- ➔ Handling "biodiversity risks" (deadlines, possible appeals in case of negative ecological impact)
- ➔ Identifying amenities, ecological services and functions to enhance ; developing and promoting the positive aspects of landscapes areas and natural urban features (social, cultural and aesthitic aspects)
- → Implementing kind of NGO partnerships
- → Lifting reserves on possible negative aspects of biodiversity
- ➔ Communicating on existing biodiversity success stories (ecological marketing, communication)



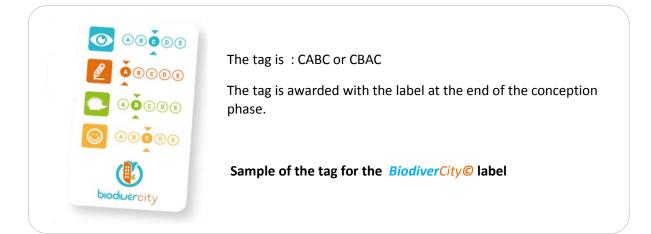
#### Provide and make the best of the biodiversity tag

The *BiodiverCity* standard establishes a scoring of new ecological buildings regarding their performance versus biodiversity.

This tag sets a rating scale of ecological performance in a complex and subjective subject, which is hardly rated with one single indicator or one single mark.

The final score is the result of the notes achieved along 4 axes defining the biodiversity aspects of a project.

To reach a significant level it is necessary to improve on those four axes.



#### **2.3. SCOPE OF APPLICATION**

#### **Projects concerned**

The scope of the *BiodiverCity* standard encompasses urban, suburban or natural sites and their natural or urban context bearing an urbanization project.

The purpose of the standard is a building, an operation, a campus, or an eco-neighborhood to be constructed or needing big renovations. It is impossible to assign a rank to a building already erect because the labelling process starts upstream to oriente the program and the project and have a global vision of the site before the construction starts. The project is clearly identified by its nature (private or public), its project manager, a planning team, a work team, a global vision and approach.

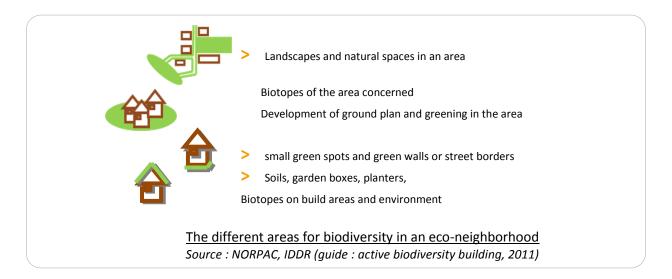


#### Are potentially liable to receive the *BiodiverCity* label :

- Residential and social habitat : housing
- Third sector : companies' head Office, office buildings
- Public buildings : schooling (junior school, high schools, campus, health facilities, sport facilities)
- Commercial centers
- Industry and logistics
- Urban planning: special planning districts, activity parks, logistics parks, big projects, etc..

#### Perimeter concerned

The *BiodiverCity©* standard is for urban big areas, i.e. the main building(s) and their associated buildings (exteriors, terraces, roofs, etc..) and the associated landscapes areas, under the responsibility of the same project management.



The major issues to address when competing for the *BiodiverCity* label are:

- The area where the project manager can exercise his scope of action (existing building, vegetal roof, private landscapes spaces, piece of land, whole property operation, perimeter of a special planning district perimeter
- The development of the piece of land to be built, in the respect of pre-existing elements (trees, ditches, ground surfaces, fauna shelters...) and the conservation of biological flows (when applicable).



#### Space and time scales

The *BiodiverCity*© standard assess a final result, i.e. the quality of outside spaces for the comfort of city dwellers where proximity biodiversity can play a key role (gardens, view..)

In that respect, it takes into account the relationship to the natural areas (whether close or remote proximity).

Interms of time, the assessment takes into account the prospect of vegetation growth and fauna habitat, as an added-value for the buyer.

The *BiodiverCity* label is granted before commercialization. It is checked and consolidated at time of reception.

#### In which case is the standard useful ?

This standard deserves to be used in all cases where the demand for biodiversity is strong or for property projects with a strong biodiversity challenge. Such as :

- 1- When the request is initiated by the client or the market
- Sensible activity where biodiversity is important in terms of image.
- Client or project manager committed to sustainability development and biodiversity
- Ecological-performance obligation when facing too many certifications

#### 2- For projects with a rich or sensitive biological environment

- Natural sites with a high potential and huge landscapes areas
- Ecologically sensitive environment : ZNIEFF, (zone of floristic, faunal and ecological value), protected areas such as Natura 2000 areas for instance
- Light sub-urban environment: green belt, parks and woods, flora gardens, recreational parks, etc..
- Green and blue network location: intra-urban ecological corridors, river banks, local town planning areas, etc..

#### 3- Depending on the specific nature of some projects:

- tourism activity (hotels) and outdoor recreation programs
- High-end housing programs



The standard is particularly useful when users are involved in the building project with big outdoor areas. It then becomes a risk management tool or even a technical tool.

The standard is adapted for property operations which pursue a global outstanding level in terms of sustainable construction, ecology or brand image, particularly when these operations include landscapes areas and gardens on the site or nearby. Nonetheless, a biodiversity approach is also possible in dense or mineral areas, with the same biodiversity improvement objective.

The *BiodiverCity* label can be associated, as the case may be, to other sustainable construction labels, such the French BBC Effinergie, Minergie (Switzerland), Passivhaus (Germany), Blue Angel (USA).

#### **2.4. SUGGESTED APPROACH**

#### When should the process be initiated?

The important stages of a biodiversity project are the global cost preview and the life cycle of the building.

- conception : study of the background and potential of the site
- *construction* : important stages for the preliminary works and plantations
- *Operation:* maintenance.

The process must be initiated upstream while the site is still free of any outside intervention, in order to have a clear view of the seasons' cycle, and give the project and the program the right orientation open to creativity.

The work process is interactive between the different stages of a project: program, sketch, preproject, etc..

The *BiodiverCity* tool allows a progressive assessment of the performance level (biodiversity tag). The optimized profile is determined at the end of the conception stage.

The maintenance stage for gardens and ecosystems must be planned carefully: environment, knowledge and implementation of relevant equipments and systems.



#### Who is concerned? Who is involved?

The *BiodiverCity*<sup>©</sup> device / label are intended for players in the sustainable construction: planners, architects, promotors, property managers, building firms, facility management.

The training and awareness-raising of partners applies to project managers, project owners and other service providers, firms, users, and external partners.

The standard isn't just a training tool but also a creativity and dialog device for all stakeholders of a specific project, on the biodiversity issue (for instance: introducing the initial profile of a project and discuss further improvements). It gives a communication framework on topics to be addressed.

#### > Project manager : decision-maker / key player for the new approach

The project manager is essential for a successful project, like an ignition key. The process cannot materialize without a strong will at the highest level.

The final goal of the project will be clearly explained and supervised one of the leading parties :

- The customer, the investor, if global sustainability and « green value » so require
- The architect, who will impulse the image of the project
- The landscaper and engineering firms concerned
- The user of the building and the future maintenance manager.

#### ➔ The involvement of the architect

The role of the architect in the process is important. He is directly involved by some issues (biophilia, green walls, ...). Bio-architecture is determining in the process.

La maître d'ouvrage, au travers du diagnostic écologique initial de l'écologue, doit fournir en amont à l'architecte un éclairage sur « le génie biologique du lieu » et les orientations possibles.

#### ➔ The increasing role of the landscaper

The approach gives an increasing role to the landscaper, who will work in close relationship with the architect and whose scope can extend to roofs, walls, indoor patios, scenery on the landscapes areas from the building and a sensitive approach to the environment.

The label can generate new businesses, such as vegetal designers, biotope conceptors, garden-facilitators, and will work with new suppliers (for birdhouses, terraces, vegetal walls..)



#### → Other targeted players

The approach also concerns the following players in the construction industry:

- AMO HQE
- Construction firms : landscapes areas, clean construction sites,
- FM management, owners and users..

The standard makes a debate possible between customers and users on biodiversity issues.

#### Resorting to the accreditated ecologist

The subject is too new and too complex to be dealt with by non-specialists. The label requires the presence of a qualified « biodiversity » expert, knowledgeable on the label, who will act as Project Management Assistance, consultant and assessor.

The mission of the ecologist or biodiversity consultant is to carry out the biodiversity assessment of the site, then regularly improve the biodiversity profile of the project, with relevent, coherent and useful amendments.

He plays a pedagogical role, raising the team's spirit. His knowledge of the site and the project will be invaluable to enrich and optimize the profile of the project, in order to meet the tag requirements in the end.

The ecologist must be accredidated by the IBPC to be able to carry out the assessment mission.

#### Setting a new mission

The ecologist acts as council for environmental Project Management assistance, which starts with the choice of the site and the definition of the program.

The ecologist is the keeper of the rules and will keep in mind that the mission is not just backed by rules but a set of ratings that he will bring to the highest level possible, taking into account the constraints of the project.

The *BiodiverCity* label is a good support for all new projects, and explains some scientific concepts to make them understandable by all stakeholders in a multidisciplinary team.



Ecologists must be reminded that, in the assessment of urban biodiversity, the challenge goes beyond the description of natural site to be preserved; it comprises :

- The assessment of ordinary urban ecosystems on the site according to the standards useful for the project
- The understanding, valuation of potential and ecological functionalities to uptrade in the city
- The identification of services rendered and their local weight
- An anticipation on the impact and optimization of the project (points to be avoided, reduced, and compensated for).

Through performance charts, it is possible to discuss the reasoning system with the project manager and other contracting specialists.

#### Preliminary assessment / fauna flora original environment

The specifications for the initial mission of the Biodiversity consultant are to be defined in view of the following mission (audit of the project):

- 1. Inform and communicate on the local environmental policy
- 2. Detail the environmental background and regulatory constraints thereof
  - Immediate vicinity and surroundings : habitat, size
  - Presence (or not) of protected spaces and species in the neighborhood (2km)
  - Ecological background : local and regional ecological assets
- 3. Assess contribution of the land to ecological flows
  - Main natural reservoirs in the vicinity
  - Green corridors in the vicinity of the site
- 4. Describe the initial ecological potential of the property (land area, buildings)
  - Inventory, description and surface of habitat (mineral, vegetal or natural)
    - Revegetation rate of the area
- 5. Assess the ecological background
  - Description of vegetaion, inventory of living species, number of species per habitat, vegetal areas represented, absence, threats
  - Rapid survey of the fauna present or potentially present on the site and its needs
- 6. Identify the services provided by biodiversity on the site
  - Development enhancement and other services (well-being, discovery).
  - Community services to inhabitants (landscapes spaces, gardens, nature-discovery activities)
  - Ecosystem services implemented locally (cycles, climate, and pollution).

The audit will provide recommendations for the implementation of biodiversity in the project and for the reduction of possible impacts on biodiversity.

The ecologist will play a leading role of consultant throughout the conception stage.



#### 2.5. PROJECT MANAGEMENT SYSTEM

The *BiodiverCity* approach gives a method to reach the highest level of performance in the label.

An upstream dedicated project management investigates on the following phases:

- 1. Launching, commitment, decision (Go/No Go)
- 2. Initial audit of the site and the background made by an ecologist
- 3. Importance of biodiversity in the program
- 4. Biodiversity during the conception stage : definition of the biodiversity approach of the project
- 5. Biodiversity during the construction stage: conservation of the existing, addition of new elements
- 6. Anticipation of the management and maintenance in the long run

The commitment and dedication of all stakeholders (Project Manager, architect) are essential at each stage of the action program.

The approach is best described on the BBP-Norpac<sup>1</sup> website : this website and the LPO Guide<sup>2</sup> both provide technical tips.

There is no Environmental Management System specific to biodiversity. But the EMS commitment must be reinforced in the EMS quality charters, HQE and the environment issues.

All biodiversity topics must be documented and all important decisions taken must be traceable.

The initial diagnosis is essential as well as the report of the ecologist to ensure the good understanding and the goal of the project. Awareness to the outcome of the diagnosis are essential at the different stages:

- Conception
- Construction
- Management plan, users' and management level.

After acceptance of the work, it is important to communicate on the management plan and to insist on the awareness and the involvement of the users. Communication is essential for the sustainability and optimization of the potential implemented on the premises.

http://www.biodiversite-positive.fr/moa/integration-au-systeme-de-management-dune-demarche-de-certification-exemple-de-la-demarche-hqe/ LPO Bâtir avec la biodiversité (référence à fournir)



### **2.6. WORKING ON THE CONTENT**

The standard assembles the topics and data along 4 axes setting the conditions for success of a biodiversity project:

- The commitment
- The project
- The potential / environmental benefits
- Amenities and wellbeing of city dwellers.

#### The Four dimensions of performance for urban biodiversity projects

Given the complexity of the subject and the variety of sites and projects, biodiversity cannot be assessed along one single axis or one single point of view.

*BiodiverCity©* echoes with those four dimensions where key success factors have been identified. It is then possible for projects to excel in one dimension or another.

The four dimensions target different players and reflect different points of view :

- 1. Commitment : Project management and environmental aspects of the project
- 2. **Project** : Architect, conceptor, biodiversity and layout of the project in the site
- 3. Potential : Ecologist, natural and scientific indicators
- 4. Aménities : User and city dweller, wellbeing and services rendered by upgraded biodiversity

Generally speaking, in terms of strategy management:

- The first axis is managerial, and is meant to enhance the management systems and the role of biodiversity
- Axes 2 and 3 focus on technical aspects, made-to-measure ecological solutions
- Axes 2, 3, 4 add a marketing dimension and add value to the project (what is seen)



The label is split in four different ratings. The targets of the performance tags clearly:

- Organize the work and concentrate the questions by type and knowledge of intervening parties
- Display the expected result to help the users and all intervening parties

Each axis relates to one particular player of the project but concerns all conception stages (program, sketching, execution of project).

Thanks to the four axes and four different angles, the final rating is the result of 4 notes, and is therefore undisputable.



# **AXIS 1 - THE COMMITMENT**

The pledge, the know-how, the project management for biodiversity

It confirms the commitment of the experts (investor, realtor, property owner ...) towards biodiversity. For a project to be labelled, it is important to show the drive to mobilize and organize innovative actions towards biodiversity : compliance with local regulations regarding preservation of nature, appraisal of existing assets on the site and in the local environment in line with the project obligations. The management of biodiversity on the site calls for sticking to and complying with the goals. These follow-up actions can be improved in many ways (communication, education, oriented discussion).

This willingness, the pledge for biodiversity must be envisaged upwards, long before any intervention on site, when defining the program.

An audit must be carried out by the ecologist prior to any preparatory operation on site.

No biodiversity-oriented project can go through without a real pledge for success. it is not an easy path: existing local biodiversity elements must be preserved, managed, emphasized, when possible. All these aspects, big and small, must be interpreted with relevance and in the right proportion in the programs and specifications concerned.

The program will take into account the inside/outside interactions, the wellbeing of users and access to nature. It must be an incentive to use bio-sourced material, a bioclimatic architecture, innovative biotechnologies, even biomimicry.

On this axis, the success of a biodiversity-orieted project requires the commitment of the architect, of specialists (ecologist, landscapers, ..) and a long-term planning of the resources needed for the maintenance and smooth growth of the equipment implemented on site.



# AXIS 2 - THE PROJECT

# Designing a "green orientation" for the project according to the ecological engineering of the ecological place and creating layout adapted to the living.

This axis does not assess the ecological absolute value of an operation (axis 3), but the consistency of the approach to the project according to the qualities of the site, its surroundings, its neighborhood and the expected advantages for city dwellers. It calls for an innovative, imaginative project management and how they perceive the place and role of nature even in a densely populated urban area.

It spurs the role of architects and landscapers-designers, and calls for an ecological architecture and better connections between architecture and the living world.

This axis refers to the characters and qualities of the biodiversity issues of the project. They reinforce the architectural issues, which must take into account the ecological potential of the project. The project is envisaged as a whole: the site (even urban ones), the ecological impact (negative, positive impacts, reconquest or compensation...), and all architectural innovations related to biodiversity.

Defining the place of the future buildings on site is the first biodiversity issue: optimization of the landscape massing (studies requested), view from the building (biotopes and nature in the surroundings of the building). The green and blue network and the ecological continuities favoring biological renovation features on the building must be done in full compliance with the environment to validate their ecological impact and improvement: the goal is not to create a new local ecology but to upgrade and make the best out of the existing environment. The layout must be done in view of the connections and surroundings, and point out the impediments and other obstacles. One of the objectives can therefore be the introduction of species potentially already present in the local environment.

The local approach of the project (relationship with stakeholders interested by the project) must be optimized: respect of landscape constraints in the urban planning documents, consistency with local policies for gardens and biodiversity, partnership for maintenance.



## AXIS 3 - THE ECOLOGICAL POTENTIAL (EP)

Optimizing the ecological potential of the project according to the urban, suburban or rural context: biotope, ecological environment.

For any piece of land, any building, any yard or construction site, there are necessarily some spots that are more difficult to convert / develop than others. Biotopes (with some biodiversity elements), and biogenesis can bring some fresh ideas to develop those spots (choice of substrate, water, light, maintenance system).

A wide ecosystem approach encompasses data from the green and blue network as well as a global assessment of the ecological potential of the project. It needs :

- a vision of the environmental background of the project (islands of nature, trees, gardens..)

- to harmonize the project to the **existing** natural elements and ecological networks and **not the other way round !** 

The genuine biological potential of a property project is the **final** ecological value of the property : the ecological value of the site is preserved and strengthened and will bloom with the adapted maintenance solutions. This axis is very « biologically minded », and requires good knowledge on property-related scientific ecology issues, and maintenance (envelops, roads and utilities).

The Standard gives some hints on the ecological factors to be improved. It is based on a simple formula for calculating the ecological potential of the environment. The formula highlights the factors enabling new ecosystems in the operation. The formula is explained in the technical manual:

$$\mathsf{EP} = \mathsf{Q} \times \mathsf{C} \times \mathsf{F}$$

where :

- **Q** : the biological factor, for **Q**uality and scarceness of flora and fauna species
- C : the biological Capacity, surface and volumes available for this « nature » environment,
- F : the Functionality factor, i.e. access, hospitality and accommodation of species

This axis attempts to maximize all factors impacting all the various useful biotopes (gardens, terraces, low walls, facades with climbing plants, old trees preserved, ...) and equipment (hives, nesting boxes, other habitat), to welcome a rich variety of flora and fauna on site, which will improve a greater ecological resilience.

<sup>3</sup>Méthode d'évaluation du Potentiel écologique des milieux. Programme national de recherche – utilisation du sol en Suisse – ECONAT – Guy Berthoud et al. 1989



## **AXIS 4 – AMENITIES AND SERVICES**

#### Emphasize the services and benefits arising from local biodiversity

The method is based on the new concept of "ecological services" rendered by biodiversity to inhabitants, users and city dwellers.

Biodiversity can provide many services to a building complex or an urban area:

- **Cultural and social services:** aesthetic and recreationnal elements that contribute to the wellbeing of all, young children stimulation (education to nature), animation (noises, sounds, odours...) and the ongoing improvement of the quality of life in the neighborhood.
- Additional resources: to a lesser extent, biodiversity can provide fruits, vegetables, flowers, preservation of the genetic heritage (local variety of plants and fruits...)
- **Regulation:** mitigation of urban climate pollution, temperature, moisture, shade, permeability of soil, sewage, recycling and biodegradation of organic waste on site.

#### The concept of environmental amenities

By « amenities » we mean all the pleasant aspectgs of environment that cannot be the sole property of someone i n particular, nor cannot have a monetary value, but on the contrary can be enjoyed by many stakeholders. The concept can include :

- The **significance** and **interest** of **perspective** on nature, landscapes, not-built area, gardens with style
- The **interest** of a **peaceful setting**, nature sounds (bird songs, crickets and grasshoppers, locusts..), odours (fragrance of plants or ground after the rain), dark night
- The senses of belonging to a region, a quarter, thanks to the proximity of living species to discover, observe and familiarize with.

The pleasure can sometimes arise from the satisfaction of knowing that these elements are within touch and sustainably preserved. The value of amenity is complementary to the use value. They can be shared and generate some social small talk ("there is a hedgehog in my garden", "I've just seen a sparrow", "the daffodils are blooming"...).

Although amenities are non-market goods, their added-value to a property is important but so far it is not possible to measure their impact.

This new immaterial criterion is part of the ecological and sustainable added-value of construction and property.



It is essential to visualize the close connections between those four different axes to understand the method of the rating.

Axes 1 & 2 refer to two specific stages of a real-estate project: planning and conception. There are numerous stakeholders concerned and the goals, albeit targeting the same environment and biodiversity issues, are split in order to cope with the apparent dissemblances of the two axes.

Axes 2 & 3 are complementary. They tackle the environmental and biological background of the site, which will oblige the project to adapt to pre-existing conditions.

And finally, axis 2 is an anticipation of axis 4. It involves the conception of the project and handles the question of uses and amenities to be implemented in the project.

## **2.7.** HOW ARE THE LEVELS FITTING TOGETHER

#### Architecture of the standard

The *BiodiverCity©* standard is broken down in:

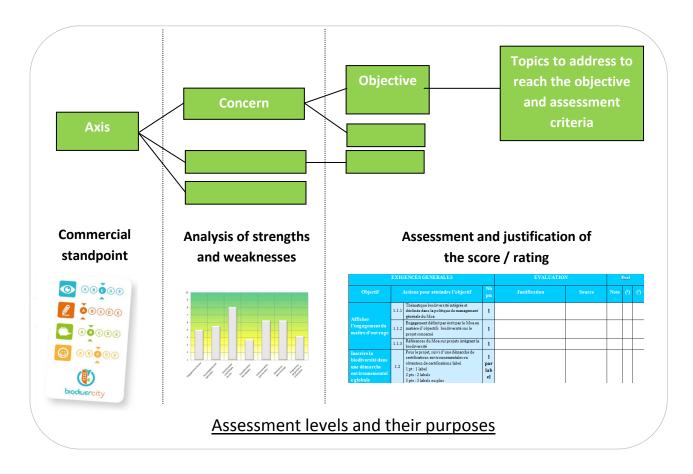
- 4 axes, as described above,
- 27 listed topics to discuss with the stakeholders of the project (cf. technical manual and software)
- 63 objectives to target by precise actions, if relevent for the project (cf. technical manual and software)

They all depend on complementary issues, in the four different dimensions of the project.

The levels are intertwined, both for the project planning and the reading of results. The system allows the users a clear reading:

- The tag for a quick and visual assessment of the project
- The topics for easy viewing of the strengths and weaknesses of the project
- The software for an analysis and checking of the rating by objective and topic.





The performance levels and scoring are displayed along the 4 thematic axes on the label tag.

They define the *BiodiverCity* profile, the label tag.

The results (A.A.A.A.) are displayed by dimension/theme. (axes 1.2.3.4.)

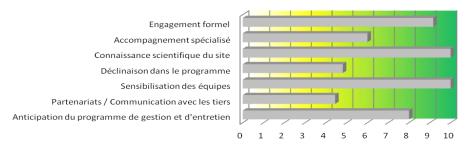
#### The various levels and how to address them

#### "CONCERN"

A « concern" is an important assessment criterion : it is a discriminating and critical point in the labelling process. The indicators (rated from 1 to 10) of the concerns designate a number of objectives to achieve for each concern.

Each concern is listed by the software (histogram), when all criterions of the axis are evaluated. It is a easy way to assess the strengths and weaknesses of the project at first sight.





#### Notes par préoccupations pour l'axe 1

The scale of concerns plays an educational role for the understanding of the axis' rating. It should be answered carefully, in order to achieve the highest objectives mentioned in the standard.

#### « OBJECTIVE »

An objective is a targeted work area to be addressed carefully in relationship with a « concern ». Objectives are goals to achieve apart from any idea of a rating.

This level serves as a checklist. For instance, it is possible to reach a good result even if not all the objectives are achieved.

An objective is made of one or several topics to work on, or actions to implement.

#### "ACTIONS TO IMPLEMENT"

These topics are directly oriented on the on the actions to implement in order to get the best possible rating.

This level details very precisely the actions to implement. However not all of them are mandatory, because the global calculation derives from the total number of points achieved per axis.

The evaluation grid is done at this level (see technical manual).

For each action, the rating criterions are indicated in the manual and in the assessment software according to the relevant matter.



# **2.8.** THE ASSESSMENT INTERPRETATION

#### By Whom?

The assessment and rating of projects is done by a qualified assessor (BAP or BAP +). The assessor also submits a supporting document validating the score. This responsibility requires a good knowledge of the site and of the project, as well as a good comprehension of the technical manual and the label's objectives.

The rating is awarded in respect of the actions described above, according to the level of achievement of the objectives.

The intermediate ratings are displayed as well as all elements of justification for giving the final score.

#### The technical manual and the scoring method

The technical manual describes all "concerns" to tackle, as well as all the « objectives » to target for a better chance to reach the best performance level. The manual contains:

- 27 « concerns » to discuss with the various players in the project
- 63 "objectives" to target, if relevant

#### Scoring

Scoring from 1 to 3, in respect of the technical manual criterions and of the actions implemented. Scoring from 1 to 5, when it comes to ecological potential.

See details in the technical manual.

#### **Conversion / Equivalence principle**

The notation system is flexible and the ecologist-assessor is free to give a rating for an action which, although part of the expected objective, does not appear in the scoring grid.

However, the scoring must reflect the notation system indicated in the technical guide and by all means, the assessor MUST justify of the equivalence of the score and support the score with some own elements of proof.

#### Weighted score

Scores per objective are weighted from 1 to 3, according to their strategic importance towards the final result.

The software displays sthe weighted coefficient of the action.

#### The software

The software is the working tool of the project.

The software displays the score according to the tag scoring system, as well as performance indicators histograms per axis. It is also possible to edit an action plan to follow-up the biodiversity improvement in the project and therefore highlight the development axes.

#### Progressive Assessment & continuous improvement

The assessment is done on plan and on commitment.

The result is displayed in full transparency and is easily readible thanks to two simple tools :

- Global performance tag
- <u>Performance histograms per axis</u>

This thematic presentation of results enables the project manager and teams to adjust and upgrade their project in the 4 axes of the performance standard.

The optimisation process can be progressive until adjusted to the optimum profile.

The finale profile is the one adopted after obtention of building permit (or equivalent) and the project planning is stopped.

At this stage, the Label is requested to the IBPC. Therefore the score is given and made public before the building is delivered which is a very good marketing move for the project and IBPC.

#### Consolidation at reception of works

The assessor makes a visit of the building after it's finished and checks all criterions in order to :

- Take positive account of variables that the contractor may have added
- Downgrade the score when some planned actions have been dropped out or discarded

This stage serves as a guarantee for the final client and the user.

#### The organization of the documentation:

To be defined.



# THIRD PART Labelling scheme

•

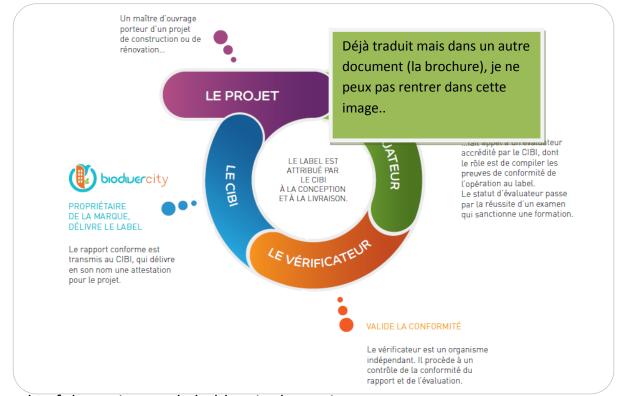


# 3.1. OVERALL SCHEME

An overall scheme (structure, process, intervening parties...) is put in place to reach the goals detailed above.

This scheme is operational and open to every customer and real estate leader who respect the rules.

The approach for obtaining the label is therefore based on a well defined technical frame with compliance controls. It relies on the commitment of the project manager and on the expertise of the profesionnals involved in the project.



#### The role of the various stakeholders in the project

The scheme comprises:

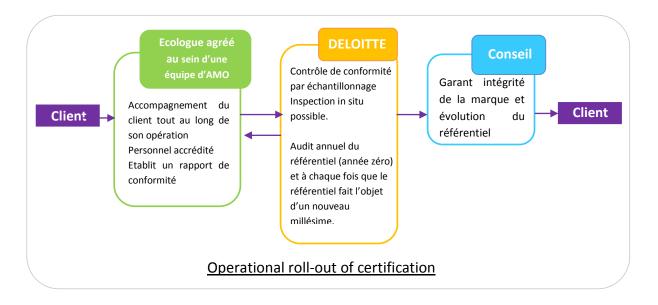
• The **IBPC** : the International Biodiversity and Property Council (IBPC) © : the support structure (independent association under the French law 1901), decision-making body, which manages and supervises the whole scheme

- The *BiodiverCity* standard : (current V.2 version) :
  - This explanatory guide
  - o The technical manual for the rating of the several criterions
  - The assessment and calculation software



- A network of specialized and accreditated assessors
- An idependent compliance **audit system**, implemented by an independent auditing body, with extensive knowledge in sustainable real-estate, and leadership for the accreditation of assessors: this auditing body is DELOITTE.
- A scientific and technical committee to validate and promote the system.

The certification is issued through an official statement (IBPC), and the *BiodiverCity* c trademark is owned by IBPC.



The *BiodiverCity* tag (AAAA type) is associated to the logo, and the results are displayed on several levels of readings, by performance axis, through easy-to-read graphs.

The *BiodiverCity*<sup>©</sup> tag and its related standard are constructed along a continuing improvement method.

Surveys of the projects' advancement and updates of criterions are done by the scientific committee members. They also make sure that the contractual obligations of the Technical Committee are met within the frame of the follow-up and constant upgrading of the standard.



# **3.2. GOVERNING BODY**

#### IBPC : Project management body with an international ambition

IBPC is a non-profit organization (French law 1901) founded in Paris on October 8, 2013 by various stakeholders in sustainable construction, eager to promote the issues of building and biodiversity.

The goal of IBPC is to promote the best practices regarding urban biodiversity issues, in the planning, conception and commercialization of buildings. At the same time, IBPC raises public awareness to all biodiversity issues in urban areas.

IPBC manages and monitors the whole process in order to acquaint people with:

- the *BiodiverCity©* label and its logo rewarding innovative projects
- the *BiodiverCity©* tag displaying the performance of the process and the expected results
- the *BiodiverCity* tutorials for auditors, and to develop new fields of expertise.

Fully committed to the public interest, **the International Biodiversity and Property Council Conseil International** gathers all organizations, associations, institutions, public authorities and private companies wishing to take an active part in the Council decisions regarding preservation and development of urban biodiversity.

# Colleges

IBPC is composed of 6 Colleges:

- 1. Developers, promoters, builders and engineering companies
- 2. Public interest associations supporting biodiversity or issues related to the built environment (use, perception...)
- 3. Local authorities and state-run institutions
- 4. Investors, real-estate and lenders
- 5. Engineering, consulting, architecture, process and services companies related to biodiversity
- 6. Users and building managers



As head of this college, the International Blodiversity & Property Council (IBPC) is in charge of :

- 1. The integrity of the **BIODIVERCITY**© label and the technical development of its associated standard
- 2. Nominating the auditor
- 3. Delivering compliance certificates to projects associated to biodiversity
- 4. Keeping record of accreditated assessors and certificated projects
- 5. Building a marketing and communication plan for the enhancement of the label.

The Council develops and promotes:

- The technical specifications linked to the BiodiverCity<sup>®</sup> label, which allow to ensure that a project or a group of projects comply with the set criteria
- A set of tutorials designed for the project assessors and advisors,
- A website, accessible to all public, comprising multiple case studies, and providing a list of assessors and consultants with confirmed experience.

#### **Scientific and Technical Committee**

The Scientific Committee is in charge of appraising and adjusting the assessment criterions.

Four teams will work on the four main axes of the standard, along their core business field :

- Axis 1: EMS of construction projects, knowledge and useful inventory for construction projects
- Axis 2 : « green » and innovative architecture, layouts adapted to the living, impacts and benefits
- Axis 3: optimization of the ecological protention of the project, integration in the project the existing natural elements of the site, maximization of the useful biotopes and environmental functionalities
- Axis 4: amenities and ecosystemic services, wellbeing of city dwellers.

The Scientific Committee develops ideas and works closely with researchers on urban biodiversity.



#### The auditor: the control of compliance le garant de la conformité

The auditor reviews the files received from the assessors and checks their conformity with the label. The checking is done by sampling.

*In situ* audits of the projects can be decided anytime.

#### The role of the auditor

A conformity assessment based on the assessor report is done by the auditor. *In situ* audits can be triggered by the auditor anytime.

The audit report is then forwarded to the International Biodiversity & Property Council (IBPC) who will deliver the certification and keeps a record of all certified projects.

#### Choice of the auditor for the process:

The organizations having submitted a declaration of their activity to IBPC, together with written evidence of their impartiality and competence, are SOLE habilitated to be selected for audits of the project files forwarded by the assessor.

The impartiality and competence of the auditor are determined by the members of the IBPC bureau and as per the international rules in use.

Organizations accreditated by a renowned public authority and those enrolled at the National Company of auditors are entitled to submit their applications.

Being the reference of trust between the various actors, the auditor is an essential player of the process.

#### The accreditated Ecologist: both council and specialized assessor

In order to reach the high performance level required, project managers are invited to develop new skills in the biological field, and in scientific ecology, environment, gardening, plant design. The expertise of specialized architects, gardeners or other specialists may be necessary on some issues.



The process comprises two missions, two sets of services that can be executed jointly by the same person:

- 1. The Biodiversity mission / consulting, which is the common thread of the projects
- 2. The Assessment mission, defining the performance level based on the standard criterions

A strict assessment process, a deontological commitment of assessors and the several controls done by independent auditors, contribute to make the label a guarantee of reliability and success.

Only the persons « habilitated », i.e. whose professional skills are certified and who are registered by the International Biodiversity & Property Council (IBPC), are liable to deliver the performance tag and assess the compliance of a property project with biodiversity and the "urban biodiversity" standard.

The accreditated ecologist acts in his /her own name and writes a compliance report for each project.

NB: this final assessment report is in addition to the other documents supplied by the ecologist, such as : initial ecological diagnosis, guidance memo on the biodiversity assets of the project, recommendations, step-by-step assessments...

The final official assessment report comprises:

- A detailed PPT with pictures of the ecological aspects of the project
- A summary of graphs done by the software (tag, diagrams) with an explanatory memo and final rating estimate.
- Evidence of conformity with the standard for the project manager. The evidence data are collected by the Assessor and presented as per a predefined format.
- A sworn statement regarding the accuracy of the data provided
- The calculation software with final tag and rating proof.

The report is then audited by authoritative and independent body which give their advice and confirm (or not) the rating proposed by the assessor.

An appeal procedure is possible. The assessor and auditor can then discuss and clarify some technical points.

#### Qualification standards for assessors and accreditation

Only natural persons whose professional skills are certified and whose names are recorded by International Biodiversity & Property Council (IBPC) can qualify for the job.



They are easily identified by their title (after last name):

- **B.AP** (Biodiversity Accredited Professional)
- or **B.AP+** (Biodiversity Advanced Accredited Professional).

B.A.P. (Biodiversity Accredited Professional) candidates to the certification of competence must meet the following pre-requisites:

- <u>Diploma</u> (engineering level, master or equivalent) or equivalent qualification in scientific ecology: Ecologist or other area of expertise with a strong ecological component (gardening, naturalist, agronomist, landscape horticulturist..)
- <u>A 3-year minimum professional experience</u> in environment, landscape, property development.
- <u>Knowledge of the real-estate or architecture trades</u>, with proof of 3 previous project missions/references

• <u>Pedagogical tutorial skills</u> in order to explain the ecological factors in town in relation with construction, as well as a capability to suggest improvements in terms of nature preservation and ecological amenities.

• <u>Commitment</u>: must have signed and approved the deontology code of IBPC as well as a written commitment to innovate and remain up-to-date in all topics related to the four axes of the standard.

These criterions are close to the SQE criterions in use for BREEAM ecologists.

# 3.3. AT WHICH STAGE OF THE PROCEDURE ARE THE LABEL AND TAG FINALLY OBTAINED?

The project must be well under way, however the label must be decided early enough in order to be used in communication before commercialization.

Study on the basis of the design dossier, with commitments formalized, notably regarding plans ad facades.

By all means, it will take place after notification of building permit (which is in France the commitment framework).

The building permit (or equivalent) must include a landscape section developing the master plan, the facades and other landscape areas, therefore showing a real commitment for biodiversity in architecture and landscape.



# **3.4.** THE PERFORMANCE TAG

The tag shows at first sight to all, -whether customers, users, dwellers, etc... -, the performance level of the prize-winning projects.

The final quotation is automatically calculated by the computer along the number of points won in all four axes.

The 5 levels of rating (A to E) are easy to read and hence a pedagogical tool for the customers, the users, the local politics and the general public. Indeed, one of the objectives of the biodiversity tag is to be visible and understood outside the specialists circles ; the quotation must be readable on the sites and logical.

The rules of the tag are the following :

- Mandatory display of the tag aside to the label
- Respect of the trademark

#### Global rating by axis (ABCDE)

The quotation code retained is based on 5 levels (from A to E), in all 4 axes :

+ /	A : outstanding performance, excellent level
	B : Good performance
	C: Average performance
	D: basic performance
-	E : poor / below-average performance.

### **3.5. RULES FOR LABELLING**

Conditions for obtaining the label.

The ecologist (accreditated person, other than a member of the Council) checks the pre-assessment on the base of :

- The software examined and completed
- documents proving the assessment



Levels of ratings	<b>Conditions of obtention</b>	Possible cases
« Basic » level	No « E » or « D » rating	ABBB, ABBC, ABCC, ACCC
« Dasic » level	At least one "A"	
« Good » level	No « E » or « D » rating	AABB, AABC, AACC
« Good » level	Minimum two « A »	
Outstandtan Javal	No « E » or « D » rating	ΑΑΑΑ, ΑΑΑΒ, ΑΑΑΟ
« Outstanding » level	Minimum Three « A »	

#### Use of the label : Rules



When granted the label, applicants are allowed to make public use of it in their communication campaigns or business offers.. The Label reflects the "Urban Biodiversity" standards and its 4 axes of performance

When a real-estate project is rewarded by IBPC, the Label delivered as an award cannot be used as a "guarantee" but only as the recognition of a project achieved and fulfilling the standards of the Label.

## **3.6. METHODS OF CONTROL**

#### **Control by assessor**

The assessor intervenes at the request of the candidate to the label and is chosen among a list of BAP or BAP+ (Biodiversity Accredited Professional ou Évaluateur Ecologue Accrédité).

#### **Content of assessment report**

The assessor is independent and writes a conformity assessment report in his/her own name. This report includes:

- the evidence of conformity to the standard of the project owner. The evidence data are collected by the assessor from persons/companies concerned and presented as per a predefined format.
- An explanatory note and an estimate of the final rating
- A sworn statement regarding the accoracy of the data provided.



The report is then audited by authoritative and independent body which give their advice and confirm (or not) the rating proposed by the assessor.

#### **Control by Auditor**

The auditor proceeds to the conformity assessment after the assessor's report.

in situ audits of the project can be triggered by the auditor at all times.

The audit report is then forwarded to IBPC (International Biodiversity & Property Council) who delivers the certification in its name and keeps a record of all certified projects.

#### **Overall supervision by IBPC**

#### Several missions, such as:

- Regular events / demonstrations / communication about the standard.
  IBPC is the driving force of the Biodiversity standard, and must always be up-to-date and informed of the latest improvements in the trade and hold feedback sessions.
- Control of the scientific committee.

#### Abusive use of the brand

IBPC monitors media watch in order to check that there is no abusive use of the brand.



# **R**EFERENCE

Convention sur la Diversité biologique

BERTHOUD Guy *et al.,* «Méthode d'évaluation du potentiel écologique des Milieux ». Rapport 39 du programme national SOL. Libefeld – Bern, 1989.

CLERGEAU Philippe, "Une écologie du paysage urbain», Rennes, Editions Apogée, 2007

CERTU, Composer avec la nature en ville. Lyon, 2001, 375 p (coll. Références).

BERNIER, Anne Marie.- Végétalisation du bâtiment en milieu urbain : bénéfice et perspectives. Mémoire Université Québec de Montreal. Mars 2011

GEYMARD Sandrine, Le rôle des espaces verts dans les arbitrages résidentiels des ménages. DEA L'urbanisme et ses territoires, direction Guillaume FABUREL, Institut d'urbanisme de Paris, Université Paris XII Val-de-Marne, 2004, 110 pages.

LAMBIN Eric, "Une écologie du bonheur", Editions Le Pommier, 2009.

RAPPORT DU CONSEIL ECONOMIQUE ET SOCIAL: "La nature dans la ville - Biodiversité et urbanisme"- 2007 - Étude présentée par Bernard REYGROBELLET - Les éditions des Journaux officiels

Wilson, E. O., Peter, F.M., Bodiversity, Washington DC, National Academies press, 521 p, 1988.

Référentiels HQE, BREEAM, LEED.

+ site NORPAC BBP

+ Guide LPO : biodiversité et bâti







